

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

**MORETTA et al.**

Atty. Ref.: 1721-44

Divisional of Serial No. 09/440,514

Group: Unassigned

Filed: January 7, 2002

Examiner: Unassigned

For: NOVEL TRIGGERING RECEPTOR INVOLVED IN  
NATURAL CYTOTOXICITY MEDIATED BY HUMAN  
NATURAL KILLER CELLS AND ANTIBODIES THAT  
IDENTIFY THE SAME

\* \* \* \* \*

January 7, 2002

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**PRELIMINARY AMENDMENT**

Preliminary amend the above-identified application as follows.

**IN THE CLAIMS:**

Amend the claims as follows.

7. (Amended) An isolated immuno-reactive fragment of an antibody according to claim 5.

12. (Amended) A method for detecting or quantifying the presence of NK cells in a biological sample, comprising:

-contacting the biological sample with the antiserum-type compositions according to claim 4, under conditions appropriate for immune complex formation, and  
-detecting or quantifying the immune complexes thus formed.

13. (Amended) A method for detecting or quantifying the presence of NK cells in a biological sample, comprising:

- contacting the biological sample with the isolated compounds according to claim 2, ,  
under conditions appropriate for the formation of polynucleotide hybridization products, and
- detecting or quantifying the hybridization products thus formed.

14. (Amended) A method for the selective removal of NK cells from a biological sample, comprising:

- contacting the biological sample the antiserum-type compositions according to claim 4,  
and
- removing the immune complexes thus formed.

15. (Amended) A method for the positive and selective purification NK cells from a biological sample, comprising:

- contacting the biological sample with the antiserum/type compositions according to  
claim 4, and
- recovering the cells from the immune complexes thus formed.

16. (Amended) A kit for detecting, quantifying, removing and/or positively purifying NK cells from a biological sample

comprising the antiserum-type compositions according to claim 4, which is enclosed in a container.

17. (Amended) A method for stimulating NK cell cytotoxicity, comprising:  
contacting said NK cells under physiological conditions with the antiserum-type  
composition according to claim 4.

18. (Amended) A kit for stimulating NK cell cytotoxicity, comprising:  
the antiserum-type compositions according to claim 4, enclosed in a container.

20. (Amended) A grafting method comprising contacting an organism chosen among the group consisting of a cell to be grafted, a tissue to be grafted, an organ to be grafted, and the host organism with

the antiserum-type compositions according to claim 4.

21. (Amended) A pharmaceutical composition comprising  
the antiserum-type compositions according to claim 4 together with  
a pharmaceutically acceptable vehicle.

**REMARKS**


Entry of the above is requested. Claims 1-21 are pending. The claims have been amended to reduce dependencies.

Attached is a Request that the Patent Office use the computer-readable copy of the Sequence Listing from the parent application Serial No. 09/440,514, which is the same as the originally-filed paper readable copy of the Sequence Listing attached. No new matter has been added.

An early and favorable action on the merits is requested.

Respectfully submitted,  
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### **MARKED-UP CLAIMS**

7. (Amended) An isolated immuno-reactive fragment of an antibody [chosen among the group consisting of the isolated antibodies] according to claim 5[, and the isolated monoclonal antibodies according to claim 6].

12. (Amended) A method for detecting or quantifying the presence of NK cells in a biological sample, comprising:

-contacting the biological sample with [at least one object chosen among the group consisting of] the antiserum-type compositions according to claim 4, [the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas according to claim 11] under conditions appropriate for immune complex formation, and

-detecting or quantifying the immune complexes thus formed.

13. (Amended) A method for detecting or quantifying the presence of NK cells in a biological sample, comprising:

-contacting the biological sample with [at least one product chosen among the group consisting of] the isolated compounds according to claim 2, [the polynucleotidic compounds according to claim 3], under conditions appropriate for the formation of polynucleotide hybridation products, and

-detecting or quantifying the hybridation products thus formed.

14. (Amended) A method for the selective removal of NK cells from a biological sample, comprising:

-contacting the biological sample [with at least one object chosen among the group consisting of] the antiserum-type compositions according to claim 4[, the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas according to claim 11], and

-removing the immune complexes thus formed.

15. (Amended) A method for the positive and selective purification NK cells from a biological sample, comprising:

-contacting the biological sample with [at least one object chosen among the group consisting of] the antiserum/type compositions according to claim 4, [the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas according to claim 11] and

-recovering the cells from the immune complexes thus formed.

16. (Amended) A kit for detecting, quantifying, removing and/or positively purifying NK cells from a biological sample

comprising [at least one object chosen among the group consisting of] the antiserum-type compositions according to claim 4, [the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas according to claim 11, the isolated compounds according to claim 2, the polynucleotidic compounds according to claim 3,

said object being] which is enclosed in a container.

17. (Amended) A method for stimulating NK cell cytotoxicity, comprising:

contacting said NK cells under physiological conditions with [at least one product chosen among the group consisting of] the antiserum-type composition according to claim 4[, the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11].

18. (Amended) A kit for stimulating NK cell cytotoxicity, comprising:

[at least one product chosen among the group consisting of] the antiserum-type compositions according to claim 4, [the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11.

said at least one product being] enclosed in a container.

20. (Amended) A grafting method comprising contacting an organism chosen among the group

consisting of a cell to be grafted, a tissue to be grafted, an organ to be grafted, and the host organism with [at least one product chosen among the group consisting of:]  
the antiserum-type compositions according to claim 4[, the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11, the NK cells purified from the graft donor  
*via* the method according to claim 15, the NK cells of which cytotoxicity has been stimulated *via* the method according to claim 17].

21. (Amended) A pharmaceutical composition comprising [at least one product chosen among the group consisting of:]

the antiserum-type compositions according to claim 4[, the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11, the isolated NK cells purified from the graft donor *via* the method according to claim 15, the isolated NK cells of which cytotoxicity has been stimulated *via* the method according to claim 17,] together with  
a pharmaceutically acceptable vehicle.